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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,290	02/20/2004	Meng Ding	HIT1P065/HSJ920030275US1	7604

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EXAMINER

KLIMOWICZ, WILLIAM JOSEPH

ART UNIT

PAPER NUMBER

2627

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/783,290	Applicant(s) DING ET AL.	
	Examiner William J. Klimowicz	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 1-11 and 21-27 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-20 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 November 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

Applicants' election without traverse of Group II (claims 12-20) and Specie II in the reply filed on August 4, 2006 is acknowledged.

Claims 1-11 and 21-27 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on August 4, 2006.

Ex Parte Quayle

This application is in condition for allowance except for the following formal matters:

Claim Objections

Claims are objected to because of the following informalities:

- (i) With regard to claim 12 (line 13), the word "on" should be changed to the word --one--.
- (ii) With regard to claim 14 (line 2), the word "material" should be changed to the word -layer--.
- (iii) With regard to claim 15 (line 2), the phrase "insulating material" should be changed to the phrase --conductive layer--.

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(iv) With regard to claim 16 (line 2) (note that in the Amendment filed on August 4, 2006, claim 16 is inadvertently numbered as claim 6), the phrase “insulating material” should be changed to the phrase --conductive layer--.

(v) With regard to claim 17 (line 9), the word “between” should be deleted.

(vi) With regard to claim 18 (line 3), the word “layer” should be changed to the word --material--.

(vii) With regard to claim 19 (line 3), the word “layer” should be changed to the word --material--.

(viii) With regard to claim 20 (line 2), a comma -- , -- should be inserted after the word “magnetic.”

(ix) With regard to claim 20 (line 2), the word “layer” should be changed to the word --material--.

Appropriate correction is required.

Reasons for Allowance

The following is an Examiner's statement of reasons for allowance:

The prior art of record fails to fairly, teach, show or suggest, by either anticipating or rendering obvious, the invention as set forth in the claims of the instant application.

Furthermore, a search made does not detect the combined claimed elements as set forth in the pending claims. Additionally, the reasons for allowance of the claims over the prior art of

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record is believed to be readily clear, self evident and apparent from the claim language set forth in each of claims 12 and 17, when compared and contrasted with the prior art.

More particularly, the instant invention (as set forth in independent claim 12) provides for a method of manufacturing a magnetic head. The method includes forming a layer of magnetic, electrically conductive material; forming first and second electrically insulating gaps in the magnetic, electrically conductive material layer the first and second gaps terminating substantially at a predetermined lap stop location, the first and second gaps defining a central portion and first and second laterally opposed outer portions of the magnetic, electrically conductive layer; forming a magnetoresistive sensor; forming a first electrically conductive lead connected with the first outer portion of the magnetic, electrically conductive layer; forming a second electrically conductive lead connected with the second outer portion of the magnetic, electrically conductive layer; and performing a lapping operation until at least one of the first and second gaps is reached.

The instant invention (as set forth in independent claim 17) provides for a method for constructing a magnetic head, comprising forming a magnetoresistive sensor; forming a layer of magnetic, electrically conductive material having proximal and distal ends, and first and second lateral side portions; providing a gap in the layer of magnetic, electrically conductive material, the gap terminating short of the proximal end and extending through the distal end; performing a lapping operation, the lapping operation initiating from the proximal end and proceeding toward the distal end; measuring an electrical resistance between across the magnetic, electrically conductive layer from the first lateral side portion to the second lateral side portion; ceasing lapping when the electrical resistance reaches a predetermined value.

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None of the currently cited prior art of record discloses the invention as set forth in the manner, function and relationship relative to other claimed structure as prescribed by the independent claims 12 and 17, particularly wherein the methods include forming a layer of magnetic, electrically conductive material; forming first and second electrically insulating gaps in the magnetic, electrically conductive material layer the first and second gaps terminating substantially at a predetermined lap stop location, forming the electrically conductive leads connected in the manner claimed, and performing a lapping operation until at least one of the first and second gaps is reached, or wherein a lapping operation is performed, such that the lapping operation initiates from the proximal end and proceeds toward the distal end; measuring an electrical resistance across the magnetic, electrically conductive layer from the first lateral side portion to the second lateral side portion; ceasing lapping when the electrical resistance reaches a predetermined value.

Additionally, none of the currently cited prior art of record fail to provide, alone or in combination, or general knowledge within the art, any suggestion or teaching for the invention as set forth in the independent claims 12 and 17.

Conclusion

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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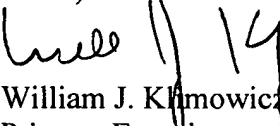
Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (571) 272-7577. The examiner can normally be reached on Monday-Thursday (6:30AM-5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


William J. Klimowicz
Primary Examiner
Art Unit 2627

WJK